

wherein said library manager enables a library process to be run on automated library machines (ALMs), including single ALMs, remote execution machines, and in an actor/object environment.

2. A data management system for file and database management according to claim 1 wherein said library manager enables two methods for initiating a library process, a first method being library initiated processing, and a second method being designer initiated library processing.

3. A data management system for file and database management according to claim 2 wherein said library initiated processing enables support by foreground processing, and by pre and post background processing.

4. A data management system for file and database management according to claim 3 in which said library processes may be run as independent tasks or chained together in a dependent sequence or any combination thereof.

5. A data management system for file and database management according to claim 3 including, for results disposition,

- a regular installation of output under full DMS control;
- a high performance (or aggregate) install which performs full checking on a designated anchor file and limited checking on the component files to improve performance;

- a create DILP (Designer Initiated Library Process) install whereby output is installed into DMS (Data Management System), then process result is recorded against it;

- a regular store which stores the output in the physical data repository but does not track it in the Control Repository;

- a sending of output to a specified destination outside of the DMS; allowing the output to be used as input to initiate a DILP.

6. A data management system for file and database management according to claim 3 wherein said library processes run dependently or independently within a homogeneous computer platform or across multiple platforms.

7. A data management system for file and database management according to claim 3 where a Library Process is pre-checked in the foreground for ensuring the existence of all the required input files prior to subjecting the input files to the background processing.

8. A data management system for file and database management according to claim 3 whereby a user may override the run-time process parameters in the foreground without the need for the Data Manager to redefine the library process.

9. A data management system for file and database management according to claim 2 whereby library processes may be deferred by initiation of a programmable timer which controls the time of initiation of a library process.

10. A data management system for file and database management according to claim 2 providing means for creating DILPs (Designer Initiated Library Processes) for recording a library process result against a non-existent file which will be created as part of the process and installed into the DMS (Data Management System) using a create DILP (Designer Initiated Library Process) installation.

11. A data management system for file and database management according to claim 2 which includes means for setting Level Independent Pseudo Processes for recording results against a file at the same level where the file resides; and which includes means for setting Level Independent Pseudo Processes for recording results against a file at a level above the level where the file resides; and wherein results may be used as promotion criteria once the file reaches a level where the result is recorded.

12. A data management system for file and database management according to claim 2 wherein a failed Post

Process may be rectified by running an equivalent DILP (Designer Initiated Library Process) for avoiding any need to re-promote the file.

13. A data management system for file and database management according to claim 2 wherein is included a utility for a user to exempt a failing Library Process result from being checked as part of a promotion criteria.

14. A data management system for file and database management useful in concurrent engineering processes, comprising:

- a design control system for fulfilling requests of a user initiated from a computer system client system coupled to a network, including

- a data management control system for managing a plurality of projects, each project having a data repository for data records and a control repository comprising a common access interface and one or more databases,

- said control repository communicating with users of said design control system for fulfilling requests of a user and the data repositories of said data management control system through a plurality of managers, each manager performing a unique function, wherein said managers act as building blocks which can be combined in a plurality of manners to support an environment for suitable for multiple users of a user community, and

- an external data control environment coupled to said data management control system via said common access interface for transferring results and data into said data management control system for storage in said data control repository from a process executed outside of said data management control system; and wherein

- one of said managers is a process manager, and
- one of said managers is a library manager enabling automated library processing of any application program or tool to be launched using input data from said data management control system and after processing enabling results to be recorded as output data in any data control repository of said data management control system as a record in said data control repository; and including means for transporting all data and results generated outside the DMS (Data Management System) into the DMS (Data Management System) for affording data integrity and result checking as if the results were created within the DMS using Automated Library Processing.

15. A data management system for file and database management according to claim 14 whereby the External Data Control interacts with

- a Lock Manager for ensuring that any files currently locked in the DMS (Data Management Stem) are not overlaid or disturbed by those transported with a PED (Pedigree) file; and with

- an Authority Manager for ensuring that an owner of the PED has the proper authorities to perform the actions requested within the PED; and with

- a Problem Fix Manager for performing proper fix management associations; and with

- Part Number processing, EC (Engineering Change) Management and Release control for any data transported with the PED; and with

- an Aggregation Manager to permit the creation of BOMs (Bill of Materials) using data transported with the PED.